

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1- 14. (Canceled)

15. (Currently amended) A method for streamlining operations in a coprocessor by ~~indicating whether~~ ensuring all required memory resources for a task are available, comprising:

prior to beginning the processing of the task,

preparing a the task for processing in a coprocessor by paging memory resources, within a memory space accessible by the coprocessor, associated with the task into coprocessor-readable memory;

sampling the memory resources to determine if all required memory resources are in a proper location in the coprocessor-readable memory; and

recording whether all required memory resources are in a proper location in the coprocessor-readable memory, wherein said recording generates an indicator memory resource that is associated with the task; ~~and~~

processing said indicator memory resource substantially at the beginning of processing the task, wherein ~~if~~ when said indicator memory resource indicates that all required memory resources are not in the proper location in the coprocessor-readable memory, a first page fault is generated, and the coprocessor stops ~~the initiation of beginning~~ the processing of the task, wherein a list of tasks is maintained that comprises tasks that the coprocessor stopped processing; and

generating a second page fault when a context switch occurs to a task that references an invalid ring buffer or an invalid DMA buffer.

16. (Previously Presented) A method according to claim 15 wherein the coprocessor is a Graphics Processing Unit (GPU).

17. (Original) A method according to claim 15 wherein the task is represented by a DMA buffer.

18. (Canceled)

19. (Currently Amended) A method according to claim 15, further comprising ~~maintaining a~~ utilizing said ~~list of tasks that the coprocessor stopped processing, so that all to~~ bring required memory resources ~~can be brought~~ to a proper location in coprocessor-readable memory at a later time.

20. (Original) A method according to claim 19 wherein the later time is determined based on a priority of tasks on the list of tasks.

21. (Original) A method according to claim 20, further comprising a periodic priority boost that increases the priority of one or more tasks on the list of tasks to ensure that all tasks eventually can be processed.

22-37. (Canceled)

38. (Currently Amended) A method for streamlining operations in a coprocessor ~~by indicating whether~~ ensuring all required memory resources for a task are available, comprising:

prior to beginning the processing of the task,

preparing the task for processing in a Graphics Processing Unit (GPU)

by paging memory resources within a memory space accessible by the GPU associated with the task into GPU readable memory;

sampling the memory resources to determine if all required memory resources are in a proper location in the GPU readable memory; and

recording whether all required memory resources are in a proper location in the GPU readable memory, wherein said recording generates an indicator memory resource that is associated with the task; ~~and~~

processing said indicator memory resource prior to beginning processing the task, wherein if when said indicator memory resource indicates that all required memory resources

are not in the proper location in the GPU readable memory, a first page fault is generated, the task is not processed and wherein a list comprising of tasks is maintained that comprises tasks that the coprocessor stopped processing is maintained; and
generating a second page fault when a context switch occurs to a task that references an invalid ring buffer or an invalid DMA buffer.

39. (Previously Presented) A method according to claim 38 wherein the task is represented by a DMA buffer.

40. (Canceled)

41. (Previously Presented) A method according to claim 38 wherein the later time is determined based on a priority of tasks on the list of tasks.

42. (Previously Presented) A method according to claim 41, further comprising a periodic priority boost that increases the priority of one or more tasks on the list of tasks to ensure that all tasks eventually can be processed.

43. (Canceled)